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M E M O R A N D U M

DATE: April 11, 1995

TO: Dave Hendren, TAT Project Manager, E & E, Chicago, IL

FROM: Yvette Anderson, TAT Chemist, E & E, Chicago, IL ya

THROUGH: David Hendren, TAT Analytical Services Manager, E & E, Chicago, IL
Mary Jane Ripp, TAT QA Reports Manager, E & E, Chicago, IL

SUBJECT: Toxicity Characteristic Leachate Procedure (TCLP) Metals,
General Iron, Chicago, Cook County, IL

REFERENCE: Project TDD T05-9501-009 Analytical TDD T05-9510-809
Project PAN EIL0857SAA Analytical PAN EIL0857AAA

The data quality assurance (QA) review of six soil samples collected from the General Iron site is complete. The samples were collected on February 22, 1995, by the Technical Assistance Team (TAT) contractor, Ecology & Environment, Inc. (E & E). The samples were submitted to IEA of Schaumburg, Illinois, for analysis. The laboratory analyses were performed according to United States Environmental Protection Agency Solid Waste 846 Methods 1311, 6010, and 7470.

Sample Identification

E & E Identification No.	Laboratory Identification No.
K5-01	950406001
K5-02	950406002
K5-03	950406003
K6-04	950406004
K5-05	950406005
K5-06	950406006

Data Qualifications

I. Sample Holding Time: Acceptable

The samples were collected on February 22, 1995, digested on March 7, 1995, and analyzed on March 7, 1995. This is within the 6-month holding time for metals and the 28-day holding time for mercury.

II. Calibrations: Acceptable

- Initial Calibration:

  Calibration results were within the established quality control limits of 90% to 110% of the true value for metals and 80% to 120% for mercury.

- Continuing Calibration:

  Calibration results showed the control criteria of 90% to 110% for metals and 80% to 120% for mercury were met.

III. Blanks: Acceptable

A method blank was analyzed with the samples. No target compounds or contaminants were detected in the method blank.

IV. Interference Check Sample: Acceptable

All parameters were within the Interference Check Sample (ICS) control limits of 80% to 120% of the true values. ICS samples were run at the beginning and end of sample analysis.

V. Overall Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on criteria for QA Level II outlined in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 3.0, Metallic Inorganic Parameters. Based upon the information provided, the data are acceptable for use.

IEA
An Aquarion Company

Client: Ecology & Environment
IEA Job#: CH950406
Project #: T05-9510-809

TOTAL RCRA METALS
mg/L

Matrix: Leachate

Client ID	K5-01	K5-02	K5-03	K5-04	K5-05	PQL
Analyte-Method Lab ID	950406 001	950406 002	950406 003	950406 004	950406 005	
Arsenic - 6010	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Barium - 6010	1	0.86	0.25	0.82	1.2	0.05
Cadmium - 6010	0.4	0.29	0.32	0.4	0.2	0.005
Chromium - 6010	0.021	<0.01	0.015	0.012	0.014	0.01
Lead - 6010	0.051	<0.05	<0.05	0.1	0.13	0.05
Mercury - 7470	<0.0002	<0.0002	<0.0002	0.00023	<0.0002	0.0002
Selenium - 6010	<0.1	<0.1	<0.1	<0.1	<0.01	0.1
Silver - 6010	<0.01	<0.01	<0.01	0.016	0.01	0.01

PQL = Practical Quanitation Limit

To obtain sample-specific quantitation limit, multiply PQL by the Dilution Factor.

IEA
An Aquarion Company

Client: Ecology & Environment
IEA Job#: CH950406
Project #: T05-9510-809

TOTAL RCRA METALS
mg/L

Matrix: Leachate

Analyte-Method	Client ID / Lab ID	K5-06 950406 006	Ext. Blank				PQL
Arsenic - 6010		<0.1	<0.1				0.1
Barium - 6010		1.9	1.0				0.05
Cadmium - 6010		0.23	<0.005				0.005
Chromium - 6010		0.014	<0.01				0.01
Lead - 6010		0.13	<0.05				0.05
Mercury - 7470		<0.0002	<0.0002				0.0002
Selenium - 6010		<0.1	<0.1				0.1
Silver - 6010		<0.01	<0.01				0.01

PQL = Practical Quanitation Limit

To obtain sample-specific quantitation limit, multiply PQL by the Dilution Factor.